

## **REMARKS**

### **Double Patenting**

Claims 41-50 and 61-80 have been rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-40 of commonly owned U.S. Patent No. 6,740,118. In response to the obviousness-type double-patenting rejections, the Applicant submits a Terminal Disclaimer herewith along with the requisite fee of \$130.00, and respectfully requests withdrawal of the double patenting rejection.

The Applicant notes that the Terminal Disclaimer lists the owner of the subject application as Warsaw Orthopedic, Inc. The subject application was originally assigned to SDGI Holdings, Inc. However, as set forth in the attached merger documentation, SDGI Holdings, Inc. has merged into Warsaw Orthopedic, Inc. Accordingly, Warsaw Orthopedic, Inc. is now 100 percent owner of the subject application. Copies of the Certificate of Merger, the Articles of Merger, and certification documents from the states of Delaware and Indiana are enclosed with the Terminal Disclaimer. The Applicant further declares that Warsaw Orthopedic, Inc. is also now 100 percent owner of U.S. Patent No. 6,740,118 (originally assigned to SDGI Holdings, Inc.). Therefore, the subject application and U.S. Patent No. 6,740,118 are commonly owned by Warsaw Orthopedic, Inc.

### **Rewritten Independent Claims 47, 63, 68 and 75**

Claims 47, 63, 68 and 75 were rejected solely under the judicially created doctrine of obviousness-type double patenting over claims 1-40 of commonly owned U.S. Patent No. 6,740,118. As set forth above, the Applicant has filed a Terminal Disclaimer which obviates the double patent rejection. The Applicant has rewritten claims 47, 63, 68 and 75 in independent form. Since claims 47, 63, 68 and 75 are not subject to any outstanding claim rejections, the Applicant submits that these claims are now in condition for allowance, and allowance of the same is respectfully requested.

Independent claims 61 and 66 have been cancelled without prejudice for possible submission in a continuing application. Additionally, claims 62, 64 and 65 (originally depending from cancelled independent claim 61) have been amended to depend from

rewritten independent claim 63. Further, claims 69-72 (originally depending from cancelled independent claim 66) have been amended to depend from rewritten independent claim 68.

### **Claim Rejections – 35 USC § 102 and 103**

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Claims 41-44, 48, 49, 73 and 76 have been rejected as being anticipated under 35 U.S.C. §102(a) by International PCT Publication No. WO 01/01893 to Marnay et al. (hereafter referred to as “the Marnay reference”; U.S. Patent No. 6,936,071 is an English language equivalent). Claims 41-46, 48, 73 and 74 have been rejected as being anticipated under 35 U.S.C. §102(e) by U.S. Patent No. 6,592,624 to Fraser et al. (hereafter referred to as “the Fraser reference”).

Claims 41-44, 48-50, 73, 74 and 76-80 have been rejected as being unpatentable under 35 U.S.C. §103(a) over U.S. Patent No. 6,113,637 to Gill et al. (hereafter “the Gill reference”) in view of the Fraser reference. Claims 61, 62, 64, 66, 67, 69, 70 and 71 have been rejected as being unpatentable under 35 U.S.C. §103(a) over the Fraser reference in view of U.S. Patent No. 6,743,256 to Mason (hereafter “the Mason reference”). Claims 61, 62, 65 and 78 have been rejected as being unpatentable under 35 U.S.C. §103(a) over the Gill reference in view of the Fraser reference, and further in view of the Mason reference. Claims 66, 67, 69, 71 and 72 have been rejected as being unpatentable under 35 U.S.C. §103(a) over the Marnay reference in view of the Mason reference.

### **Independent Claim 41 and Dependent Claims 42-50**

Independent claim 41 has been rejected as being anticipated by the Marnay and Fraser references, and has been rejected as being unpatentable over the Gill reference in view of the Fraser reference. Independent claim 41 has been amended to recite, in pertinent part, a first bearing surface adapted to engage a first vertebra, a second bearing surface adapted to engage a second vertebra, and a flange projecting from at least one of the bearing surfaces and approximately centrally located along said at least one of said bearing surfaces, with the flange having a length extending along at least one of the bearing surfaces and a width tapering in a direction along at least a portion of said length in a direction parallel to said at

least one of said bearing surfaces.

With regard to the Marnay reference, although each of the protrusions 6, 14 have a tapering height, the protrusions 6, 14 do not have a width that tapers in a direction along at least a portion of the length of the protrusions 6, 14 (the length extending along the upper/lower bearing surfaces 5, 13), as recited in independent claim 41. As illustrated in Figures 4 and 6, the width of the protrusion 6, 14 is uniform and non-tapering in a direction along the length of the protrusions in a direction parallel to the upper/lower bearing surface 5, 13. To the contrary, the width of the protrusions 6, 14 does not vary whatsoever along the protrusion length in a direction parallel to the upper/lower bearing surfaces. The Applicant submits that each of the elements and features recited in independent claim 41 is neither taught nor suggested by the Marnay reference. Accordingly, the Applicant respectfully requests withdrawal of the rejection of independent claim 41 as being anticipated by the Marnay reference and allowance of the same.

With regard to the Fraser reference, even assuming arguendo that the fins 18 comprise flanges, each having a width tapering in a direction along at least a portion of the length, the fins 18 are not “approximately centrally located along said at least one of said bearing surfaces”, as recited in amended independent claim 41. Instead, the fins 18 are located on the left and right side lobes 22, 23 of the implant. Additionally, there would be no motivation to locate the fins 18 along the central portion of the implant since the fins 18 would be positioned below the upper bone-engaging surfaces of the lobes 22, 23, and therefore would be prevented from coming into contact with the upper and lower endplates of the adjacent vertebral bodies. Accordingly, the purpose of the fins 18 (i.e., to prevent movement and/or expulsion of the implant within/from the disc space) would not be fulfilled. The Applicant submits that each of the elements and features recited in independent claim 41 is neither taught nor suggested by the Fraser reference. Accordingly, the Applicant respectfully requests withdrawal of the rejection of independent claim 41 as being anticipated by the Fraser reference and allowance of the same.

As set forth on page 4 of the Office Action, the Gill reference fails to disclose a flange projecting from a bearing surface. Accordingly, the Gill reference would likewise

not disclose the additional features associated with such a flange recited in independent claim 41.

As indicated above, dependent claim 47 has been rewritten in independent form (with no outstanding claim rejections). Additionally, claims 42-46 and 48-50 depend from independent claim 41 and are patentable for at least the reasons supporting the patentability of independent base claim 41.

**Independent Claim 61 and Dependent Claims 62-65**

As indicated above, independent claim 61 has been cancelled without prejudice for possible submission in a continuing application, claim 63 has been rewritten in independent form (with no outstanding claim rejections), and claims 62, 64 and 65 have been amended to depend from rewritten independent claim 63. Accordingly, the Applicant submits that independent claim 63 and dependent claims 62, 64 and 65 are in condition for allowance, and allowance of the same is respectfully requested.

**Independent Claim 66 and Dependent Claims 67-72**

As indicated above, independent claim 66 and dependent claim 67 have been cancelled without prejudice for possible submission in a continuing application. Additionally, claim 68 has been rewritten in independent form (with no outstanding claim rejections), and claims 69-72 have been amended to depend from rewritten independent claim 68. Accordingly, the Applicant submits that independent claim 68 and dependent claims 69-72 are in condition for allowance, and allowance of the same is respectfully requested.

**Independent Claim 73 and Dependent Claims 74-76 and 81**

Independent claim 73 has been rejected as being anticipated by the Marnay and Fraser references, and has been rejected as being unpatentable over the Gill reference in view of the Fraser reference. Independent claim 73 has been amended to recite, in pertinent part, a first bearing surface adapted to engage a first vertebra, a second bearing surface adapted to engage a second vertebra, and a flange projecting from at least one of the bearing surfaces and

extending along at least about one half of said at least one of said bearing surfaces in a direction other than an anterior-posterior direction when the intervertebral prosthetic joint is inserted between the first and second vertebrae.

With regard to the Marnay reference, the protrusions 6, 14 are disclose as being parallel to the insertion path of the implant, and the insertion path is disclosed as being parallel to a front-to-rear or anterior-to-posterior direction. (Column 6, lines 38-47). The protrusions 6, 14 therefore extend in an anterior-posterior direction, which is directly contrary to the requirements of independent claim 73. The Applicant submits that each of the elements and features recited in independent claim 73 is neither taught nor suggested by the Marnay reference. Accordingly, the Applicant respectfully requests withdrawal of the rejection of independent claim 73 as being anticipated by the Marnay reference and allowance of the same.

With regard to the Fraser reference, even assuming arguendo that the fins 18 comprise flanges, the fins 18 do not extend along at least about one half of said at least one of said bearing surfaces, as recited in amended independent claim 73. Instead, the fins 18 have very short lengths relative to the implant bearings surfaces, lengths which clearly do not extend along at least about one half of the implant bearing surfaces. The Applicant submits that each of the elements and features recited in independent claim 73 is neither taught nor suggested by the Fraser reference. Accordingly, the Applicant respectfully requests withdrawal of the rejection of independent claim 73 as being anticipated by the Fraser reference and allowance of the same.

As set forth on page 4 of the Office Action, the Gill reference fails to disclose a flange projecting from a bearing surface. Accordingly, the Gill reference would likewise not disclose the additional features associated with such a flange recited in independent claim 73.

As indicated above, dependent claim 75 has been rewritten in independent form (with no outstanding claim rejections). Additionally, claims 74 and 76 depend from independent claim 73 and are patentable for at least the reasons supporting the patentability of independent base claim 73. However, further reasons support the patentability of claim 74, which recites that the flange extends in a lateral direction when

the intervertebral prosthetic joint is inserted between the first and second vertebrae. Neither the Marnay reference nor the Fraser reference disclose a flange having the orientation recited in independent claim 73. Further, new claims 81 and 82 depend from independent claim 73 and are patentable for at least the reasons supporting the patentability of independent base claim 73.

**Independent Claim 77 and Dependent Claims 78-80**

Independent claim 77 has been rejected as being unpatentable over the Gill reference in view of the Fraser reference. Independent claim 73 has been amended to recite, in pertinent part, a first bearing surface adapted to engage a first vertebra, a second bearing surface adapted to engage a second vertebra, a flange projecting from at least one of the bearing surfaces and adapted for positioning in a slot formed in one of the first and second vertebrae with said flange defining at least one opening extending therethrough, and a bone screw engaged between the intervertebral prosthetic joint and one of the first and second vertebrae to resist displacement of the intervertebral prosthetic joint. Dependent claim 78 has been amended in view of the amendment to independent claim 77.

With regard to the Fraser reference, even assuming arguendo that the fins 18 comprise flanges, the fins 18 do not define “at least one opening extending therethrough”, as recited in amended independent claim 77. Instead, the fins 18 are solid and imperforate, and do not define any type of opening extending therethrough. As set forth on page 4 of the Office Action, the Gill reference fails to disclose a flange projecting from a bearing surface. Accordingly, the Gill reference would likewise not disclose the additional features associated with such a flange recited in independent claim 77.

The Applicant submits that each of the elements and features recited in independent claim 77 is neither taught nor suggested by the Fraser reference or the Gill reference. Accordingly, the Applicant respectfully requests withdrawal of the rejection of independent claim 77 as being unpatentable over the Gill reference in view of the Fraser reference.

Additionally, claims 78-81 depend from independent claim 77 and are patentable for at least the reasons supporting the patentability of independent base claim 77. Further,

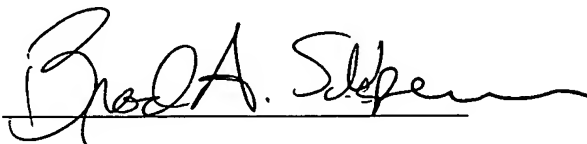
new claim 83 recites that “said flange is approximately centrally located along said at least one of said bearing surfaces”, a feature which is neither disclosed or suggested by the cited patent references.

### CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the Applicant's application is now in condition for allowance with pending claims 41-50 and 62-65 and 68-83.

Reconsideration of the subject application is respectfully requested. Timely action towards a Notice of Allowability is hereby solicited. The Examiner is encouraged to contact the undersigned by telephone to resolve any outstanding matters concerning the subject application.

Respectfully submitted,

By: 

Brad A. Schepers  
Reg. No. 45,431  
Krieg DeVault LLP  
One Indiana Square, Suite 2800  
Indianapolis, Indiana 46204-2079  
(317) 238-6334 (voice)  
(317) 238-6371 (facsimile)